

### REMARKS

This paper is in response to the non-final official action mailed January 24, 2008 where claims 1-30 were pending and rejected. By this amendment, claims 1-15, 19-22, and 26-29 are amended and claim 18 is canceled. Support for the amendments to claims 1-15, 19-22, and 26-29 may be found in the specification and claims as originally filed. No new matter is added. As a result, claims 1-17 and 19-30 remain pending and at issue.

#### 35 U.S.C. § 112 Rejections

Claims 2, 4, 5, 7-10, 12, 18, and 27 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. The applicants respectfully traverse the rejections and submit that the rejections should be withdrawn.

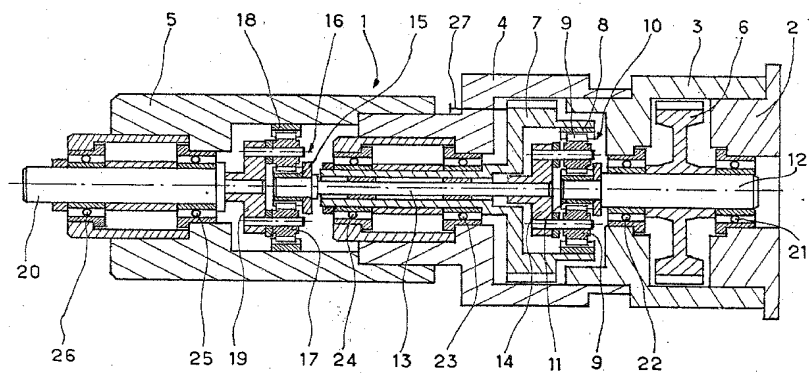
Claims 2, 4, 5, 7-10, 12, 18, and 27 are amended herein to address the § 112 rejections. The applicant respectfully submits that claims 2, 4, 5, 7-10, 12, 18, and 27 were not indefinite under 35 U.S.C. §112, however, because a claim is considered definite as long as “the scope of the claims is clear so the public is informed of the boundaries of what constitutes infringement of the patent.” *See* M.P.E.P. §2173. Nevertheless, the rejections of claims 2, 4, 5, 7-10, 12, 18, and 27 for indefiniteness should be withdrawn in view of the amendments to claims 2, 4, 5, 7-10, 12, 18, and 27 presented herein.

#### 35 U.S.C. § 102 Rejections

The applicant respectfully traverses the rejection of claims 1, 3-5, 11, 18, 20, 21, and 26 as anticipated by French Patent No. FR2530454 to Garcia et al. (“Garcia”). “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628 (Fed. Cir. 1987). Each

of claims 1, 3-5, 11, 18, 20, 21, and 26 recites a handpiece comprising, in part, a transmission arrangement comprising first and second transmission stages and a hollow gear “surrounding the plurality of planetary gears of both the first and second transmission stages.” Garcia fails to disclose or suggest a hollow gear surrounding the plurality of planetary gears of both the first and second transmission stages.

Garcia appears to disclose a transmission having sun gears and planetary gears and drive shafts. However, the official action alleges that reference numerals 8 and 18 identify inner toothings of the hollow gear. Thus, the official action must take the position that there are two hollow gears, a first hollow gear having inner toothing 8, and a second hollow gear having inner toothing 18 as the two inner toothings 8, 18 are clearly separated by an outer casing 4 and an inner casing 7. As seen in Fig. 1 of Garcia below, the first alleged hollow gear (with inner toothing 8) surrounds the alleged planetary gears 9 of the alleged first transmission stage, and the second alleged hollow gear (with inner toothing 18) surrounds the alleged planetary gears 17 of the alleged second transmission stage. Because the alleged first and second hollow gears are separated from one another, neither one of the alleged first and second hollow gears could surround the planetary gears of both the first and second transmission stages as is recited by each of claims 1, 3-5, 11, 18, 20, 21, and 26. Thus, the applicant respectfully requests withdrawal of the rejection of claims 1, 3-5, 11, 18, 20, 21, and 26.



By contrast, the hollow gear of the instant application, which is identified by reference numeral 35, surrounds both the planetary gears 24 of the first transmission stage and the planetary gears 34 of the second transmission stage. As seen in Fig. 2 of the instant application below, the claimed transmission results in a more compact instrument.

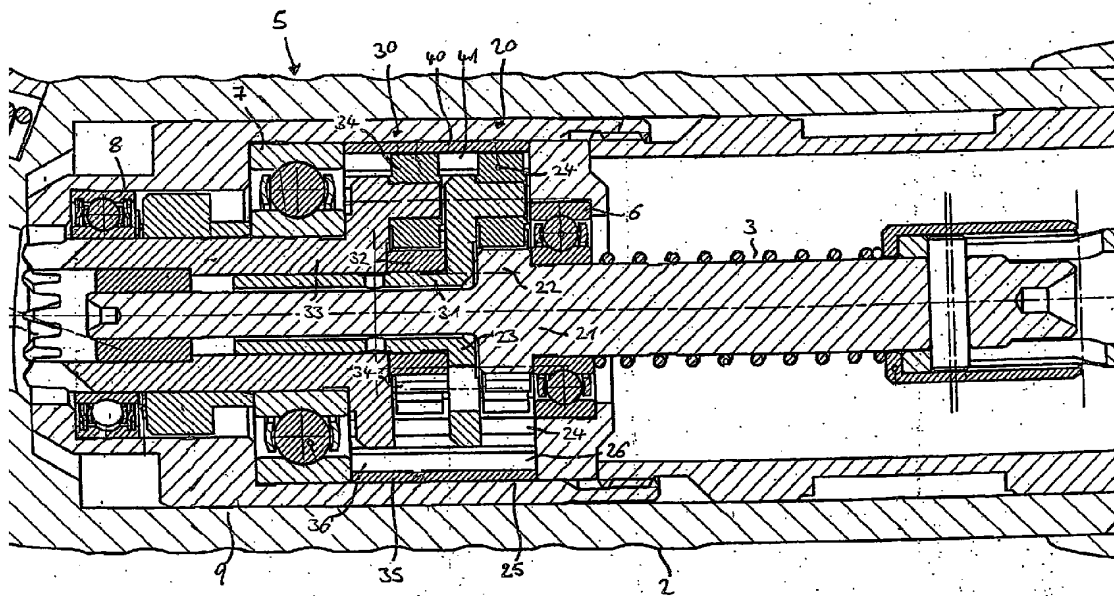
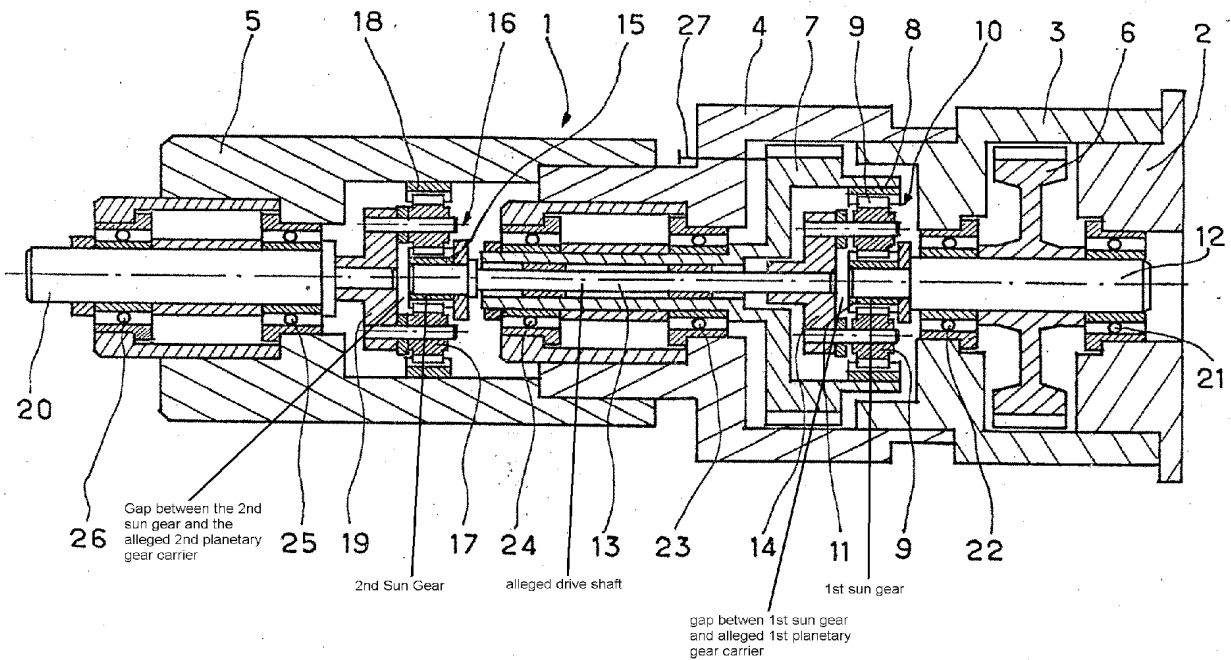


Fig. 2

**35 U.S.C. § 103 Rejections**

The applicant respectfully traverses the rejection of claims 2, 6-10, 13-17, 19, 22-25, and 29-30 as obvious over Garcia alone or over Garcia in view of one or more of U.S. Patent No. 5,569,034 to Meller et al. (“Meller”) and U.S. Patent Publication No. 2004/0048711 to Lev et al. (“Lev”). “All words in a claim must be considered in judging the patentability of the claim against the prior art.” M.P.E.P. § 2143. Each of claims 2, 6-10, 13-17, 19, 22-25, and 29-30 recites a handpiece comprising, in part, a drive shaft of a first transmission stage that extends beyond a sun gear driven by the drive shaft of the first transmission stage. The cited art fails to disclose or suggest a drive shaft of a first transmission stage that extends beyond a sun gear driven by the drive shaft of the first transmission stage.

As discussed above, Garcia appears to disclose a transmission having sun gears and planetary gears and drive shafts. The official action alleges reference numerals 11 and 15 as sun gears (hereinafter, reference numeral 11 will be referred to as the “first alleged sun gear” and reference numeral 15 will be referred to as the “second alleged sun gear”). Additionally, the official action alleges reference numerals 12 and 13 are drive shafts (hereinafter, reference numeral 12 will be referred to as the “first drive shaft” and reference numeral 13 will be referred to as the “second drive shaft”). According to the official action, the first alleged drive shaft 12 drives the first alleged sun gear 11. Immediately to the left of the first alleged sun gear 11 is a gap. *See* Fig. 1 of Garcia below:



Thus, according to the teachings of Garcia, the first alleged drive shaft terminates within the first alleged sun gear and does not extend beyond the first sun gear. The alleged second drive shaft, likewise, terminates within the alleged second sun gear and does not extend beyond the second sun gear. As a result, Garcia fails to disclose or suggest a drive shaft of a first transmission stage that extends beyond a sun gear driven by the drive shaft of the first transmission stage, as is recited by each of claims 2, 6-10, 13-17, 19, 22-25, and 29-30. Thus, none of claims 1, 6-10, 13-17, 19, 22-25, and 29-30 can be rendered obvious over Garcia.

Likewise, Meller fails to disclose or suggest a drive shaft of a first transmission stage that extends beyond a sun gear driven by the drive shaft of the first transmission stage, nor was Meller cited as disclosing such an element. Meller discloses a dental handpiece including drive shaft 20 and a gear member 40 on the

drive shaft. However, the drive shaft 20 does not extend beyond the gear member 40, nor could the drive shaft 20 extend beyond the gear member 40. In order for the drive shaft to extend beyond the sun gear, as is recited by each of claims 1-30, the sun gear must have an opening extending longitudinally through the sun gear along the axis of rotation. *See* the instant application, Fig. 1. As is clearly seen in Fig. 4 of Meller, the gear member 40 has a solid face. Thus, the drive shaft 20 can not possibly extend beyond the gear member 40. As a result, Meller fails to disclose or suggest a drive shaft of a first transmission stage that extends beyond a sun gear driven by the drive shaft of the first transmission stage, as is recited by each of claims 2, 6-10, 13-17, 19, 22-25, and 29-30.

Lev also fails to disclose or suggest a drive shaft that extends beyond a sun gear driven by the drive shaft, nor was Lev cited as disclosing such an element. Lev discloses a ceramic coated gear. However, Lev fails to disclose or suggest a drive shaft of any sort, let alone a drive shaft that extends beyond a sun gear driven by the drive shaft. Thus, none of claims 2, 6-10, 13-17, 19, 22-25, and 29-30 can be rendered obvious over Lev.

Because the cited art fails to disclose or suggest a drive shaft that extends beyond a sun gear driven by the drive shaft, none of claims 2, 6-10, 13-17, 19, 22-25, and 29-30 can be rendered obvious by any combination thereof. The applicant respectfully requests withdrawal of the rejection of claims 5-8, 10, 14-17, 19, 22-25, and 28-30.

The claimed handpiece advantageously provides a more compact arrangement and greater axial stability as compared to prior art handpieces. *See* the instant application at page 3, lines 16-22. Moreover, the claimed handpiece advantageously

provides improved running characteristics. *See* the instant application at page 4, lines 10-19.

### **Conclusion**

In view of the foregoing, reconsideration of the rejections and allowance of all pending claims is believed to be proper, and is solicited.

Should the examiner wish to discuss the foregoing or any matter of form in an effort to advance this application toward allowance, she is urged to telephone the undersigned at the indicated number.

Respectfully submitted,

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